

Cancer information on the Internet

J. Sybil Biermann, MD

The Internet has become nearly indispensable for finding the latest information on cancer diagnosis, treatment, and prevention. This chapter highlights several websites that cater to oncology professionals, researchers, and patients.

Cancer.gov, the National Cancer Institute's website

One of the most comprehensive websites for evidence-based cancer information is supported and maintained by the National Cancer Institute (NCI). The site provides a wide variety of resources to help meet the user's informational needs, including summaries on cancer treatment, prevention, and supportive care, as well as information on ongoing clinical trials, a bibliographic cancer database, funding opportunities, research programs, and cancer incidence and mortality data.

The NCI's vast website provides information suitable to clinical practitioners, researchers, patients, and the general public. Among the cancer resources available from the home page (<http://cancer.gov>) are:

- peer-reviewed, frequently updated summaries on cancer treatment, screening, prevention, genetics, and supportive care (<http://cancer.gov/cancerinfo/pdq/>);
- a registry of approximately 12,400 clinical studies sponsored by the National Institutes of Health, other Federal agencies, and private industries and conducted in all 50 states and in more than 100 countries (<http://www.clinicaltrials.gov>), plus up-to-date information for locating these trials;
- a comprehensive database of NCI-supported basic and clinical research programs (<http://researchportfolio.cancer.gov/>);
- a directory of NCI research tools and resources (human, animal, and genomic) for cancer researchers (<http://resresources.nci.nih.gov/>);
- statistical databases and resources, including cancer incidence by gender, race, ethnicity, and type of cancer; 5-year survival rates; frequencies of childhood cancers; and cancer mortality in the United States by gender and race (<http://cancer.gov/statistics/>).

PubMed

PubMed (<http://pubmed.gov/>), a service of the National Library of Medicine, provides access to over 12 million MEDLINE citations in abstract form dating back to the mid-1960s. New features at PubMed are icons that alert researchers to whether the full text of a MEDLINE citation is available and a growing list of biomedical books that can be read and searched online.

In addition, PubMed offers selected cancer topic searches (<http://www.cancer.gov/search/pubmed/>) for 100 different cancer topics. These are prepared literature searches of the National Library of Medicine's PubMed database, with specifiable date ranges. Users also have a "search cancer subset" option, to retrieve only cancer-related citations from the PubMed database.

Cancer Information Service (CIS)

CIS is a nationwide network of 14 regional offices supported by the NCI. Through its toll-free phone service, CIS provides accurate, up-to-date information on cancer to the public. The phone number is 1-800-4-CANCER. The service responds to calls in English and Spanish.

Reliable information on cancer causes and prevention and a collection of recently issued *NCI Cancer Facts* fact sheets and the new *What You Need To Know About™* series of patient guides are also available online by following links from the CIS home page (<http://cis.nci.nih.gov/>).

Cancer.org, the American Cancer Society's website

This large, complex website is most easily searched by specifying key words, such as "breast cancer" or "survival rates," in the search form on the home page (www.cancer.org). Most of the information available is intended for patients, especially those who have been newly diagnosed with cancer, and the general public, with several notable exceptions.

One publication useful to the oncology professional is the American Cancer Society publication *Cancer Facts & Figures 2005*, available online via a link from the home page. Estimates of the numbers of new cancer cases and deaths for the current year are presented according to gender, site, and stage. Also presented is information on cancer mortality, the probability of developing cancer at certain ages, and cancer survival in adults and children.

Surveillance, Epidemiology, and End Results (SEER)

The NCI's SEER program collects and publishes cancer incidence and survival data from population-based cancer registries covering approximately 14% of the US population. Trends in age-adjusted SEER cancer incidence and mortality, by race and gender, are presented, as well as 5-year survival rates, by race and gender, and much more. The home page is <http://seer.cancer.gov/>.

Centers for Disease Control and Prevention

The Centers for Disease Control and Prevention (CDC) maintains several websites for both health professionals and researchers, as well as the public.

Links to CDC statistical reports and online databases are available in the “data warehouse” section of the National Center for Health Statistics website (www.cdc.gov/nchs/datawh.htm). Information on CDC cancer prevention programs may be accessed at the National Center for Chronic Disease Prevention and Health Promotion’s website (www.cdc.gov/nccdp/hp/).

Cancernetwork.com

Another excellent source of reliable cancer information is cancernetwork.com (www.cancernetwork.com). The site features:

- the full text of over 6,000 peer-reviewed medical journal articles from the pages of *ONCOLOGY*;
- the full text of this handbook;
- the complete proceedings of over 80 cancer symposia, conferences, and workshops held around the world and focusing on new treatments;
- free continuing medical education courses on a variety of cancers;
- MEDLINE access through an advanced search form that makes it easy to locate abstracts by date, author, and type of publication;
- a comprehensive drug-reference guide to more than 150 pharmaceuticals used to treat cancer and its complications; and
- a *Genetics of Cancer* resource center, offering both basic and clinical genetics information on a health-professional level.

CenterWatch

CenterWatch (www.centerwatch.com) offers a worldwide directory of clinical trials in all therapeutic areas. Each listing contains a brief summary of the study, the general inclusion/exclusion criteria, and contact information. The database is easily searched, even by a newcomer, and the website has become a major influence for patient recruitment into active clinical trials.

Coalition of National Cancer Cooperative Groups

The Coalition of National Cancer Cooperative Groups was founded in 1997 by the Cancer and Leukemia Group B (CALGB), Eastern Cooperative Oncology Group (ECOG), North Central Cancer Treatment Group (NCCTG), National Surgical Adjuvant Breast and Bowel Project (NSABP), Pediatric Oncology Group (POG), and Radiation Therapy Oncology Group (RTOG). The coalition’s website (<http://www.cancertrialshelp.org/medicalCommunity/medicalCommunity.jsp>) provides details on the coalition’s initiatives in many areas and features a new software tool, TrialCheckSM, for locating ongoing clinical trials among the coalition’s cooperative groups.

Other Internet sources of cancer information

- OncoLink (www.oncolink.com) is a popular website maintained by the University of Pennsylvania, offering a broad variety of news articles, fact sheets, and annotated links to cancer-related information at other websites. The site includes multimedia slide shows, video films, and audio lectures on a wide range of topics.
- The American Society of Clinical Oncology (ASCO) website, located at www.asco.org, contains cancer information for patients, including information on treatment, support groups, and other resources. Health care professionals can access information on ASCO policies, clinical guidelines, publications, and a searchable database of abstracts from ASCO's annual scientific meetings dating back to 1995. People Living with Cancer (www/plwc.org) provides patient education materials, a "find an oncologist" function, and an extensive database of patient support organizations.
- An exhaustive collection of articles and reviews on hematologic malignancies, mostly in Adobe Acrobat format and all intended for a professional audience, may be found at the American Society of Hematology's (ASH) website (www.hematology.org). The site also offers a direct link to the Society's official journal, *Blood*, where the full text of all articles dating back to January 1996 can be downloaded and printed.
- The National Comprehensive Cancer Network (NCCN) website, at www.nccn.org, provides access to the NCCN's current Clinical Practice Guidelines, links to ongoing clinical trials at member institutions, and a directory of physicians for referrals.
- MdLinx (<http://mdlinx.com/HemeOncLinx/>) provides daily summaries of hematology/oncology articles culled from a wide variety of professional publications. Articles can be accessed by linkage from the Web page. Registered users (registration is free) can also have synopses sent daily to e-mail accounts on general or specified topics within hematology and oncology.
- Other cancer society and organization websites worth visiting include those of the American Association for Cancer Research (www.aacr.org), the Leukemia & Lymphoma Society (www.leukemia-lymphoma.org), the American College of Radiology (www.acr.org), the American Urological Association (www.auanet.org), and the Oncology Nursing Society (www.ons.org). Among European sites, the sites maintained by the International Union Against Cancer (www.uicc.org), CancerBACUP (www.cancerbacup.org.uk), and the European Organization for Research and Treatment of Cancer (<http://www.eortc.be/>) are extensive, information-rich resources designed primarily for health care professionals.

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- Links to the Web pages of state and other regional cancer registries may be found at www.askcnet.org/dataq/cancer.htm. This site also includes links to cancer registries around the world, but perhaps a better source for them is at www.ikr.nl/canregs.htm. Still another place to look for cancer registries and statistical data in the United States and Canada is the website maintained by the North American Association of Central Cancer Registries (www.naaccr.org).

APPENDIX 3

Cancer Drugs and Indications Newly Approved By U.S. Food and Drug Administration, May 2004 – April 2005

Azacitidine (Vidaza): Myelodysplastic syndrome. Approved May 2004.

Bevacizumab (Avastin): First-line treatment of metastatic colorectal cancer. Approved February 2004.

Bortezomib (Velcade): Second-line treatment of multiple myeloma. Indication approved March 2005.

Cetuximab (Erbix): Treatment of epidermal growth factor receptor (EGFR)-expressing, metastatic colorectal cancer. Approved February 2004.

Cinacalcet (Sensipar): Treatment of hyperparathyroidism/hypercalcemia. Approved March 2004.

Clofarabine (Clolar): Treatment of pediatric patients with relapsed or refractory acute lymphoblastic leukemia. Approved December 2004.

Docetaxel (Taxotere): Treatment of metastatic, androgen-independent prostate cancer. Indication approved May 2004. Also, in combination with doxorubicin and cyclophosphamide, for the adjuvant treatment of operable node-positive breast cancer. Indication approved August 2004.

Erlotinib (Tarceva): Second-line treatment of locally advanced or metastatic non-small-cell lung cancer. Approved November 2004.

Gemcitabine (Gemzar): In combination with paclitaxel, for the first-line treatment of metastatic breast cancer following failure of prior anthracycline-containing adjuvant chemotherapy. Indication approved May 2004.

Hydromorphone (Palladone): Management of persistent moderate to severe pain. Approved September 2004.

Imiquimod cream (Aldara): Treatment of superficial basal cell carcinoma. Indication approved July 2004.

Letrozole (Femara): Extended adjuvant treatment of postmenopausal women with early breast cancer after 5 years of tamoxifen. Indication approved October 2004.

Oxaliplatin (Eloxatin): In combination with 5-FU/leucovorin, adjuvant treatment of stage III colon cancer. Indication approved November 2004.

Oxycodone (Combunox): Short-term management of acute, moderate to severe pain. Approved November 2004.

Paclitaxel Protein-Bound Particles (Abraxane): Second-line treatment of metastatic breast cancer. Approved January 2005.

Palifermin (Kepivance): Severe oral mucositis. Approved December 2004.

Pemetrexed (Alimta): Treatment of locally advanced or metastatic non-small-cell lung cancer after prior chemotherapy. Approved August 2004.

Temozolomide (Temodar): Treatment of newly diagnosed glioblastoma multiforme. Approved March 2005.

Ziconotide (Prialt): Severe chronic pain in patients for whom intrathecal therapy is warranted. Approved December 2004.